

A Guide to the Fishers of Queensland

Part A: TRC-Analysis and Social Profiles of Queensland's Commercial Fishing Industry

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Executive Summary

This report describes the social and financial characteristics of the commercial fishing industry in Queensland. It also identifies the social and financial relationships between the fisheries resource and coastal communities within a research framework known as TRC-Analysis.

This report provides a comprehensive profile of the commercial industry in Queensland to help assess potential social and financial impacts associated with changes in fisheries policy and management. The information provided in the report is not a social impact assessment but provides basic social and financial profiles of the fishing industry that may assist in identifying social impacts associated with later changes in resource use.

In this report, commercial fishers are defined as trawlers, line fishers, netters, or crabbers, and included Master licence holders as well as crew.

Social and financial information was collected from fishers using structured telephone interviews. The interview included questions on the fishing business and the use of the marine resource, the location of homeports, years of business operation, number of boats, size of boats, type of fishing activity and seasonal variations in fishing. Questions also included the number of employees, the value and location of sales and the town locations for business expenditure, as well as the location of resource use and the use of coastal ports when accessing different areas of resource use.

To develop social profiles of fishers within the industry, business owners and employees gave information about their family, including age, gender, marital status, housing tenure, education, place of residence, hours worked in the industry, as well as the towns from which they purchased household goods and services.

Eighty-nine percent of fishers that could be contacted participated in the research (1,008 questionnaires), representing 41.2% of the industry. Of the 2,679 Master licence holders that exist in Queensland, 236 (8.8%) were considered latent, and had not been actively engaged in commercial fishing within the last year.

The profiles were analysed using a recently developed framework for social assessment in natural resource management known as Town Resource Cluster Analysis (TRC-Analysis). This framework allows the relationship between resource systems and human social systems to be described and examined. Specifically, the analysis identifies clusters of mutually interdependent towns and communities (TRCs) that have relationships to specific areas of marine resource use.

Twenty-two TRCs were identified along the Queensland coast from Karumba in the north of Queensland, to Southport in the south. A detailed description of the social and financial profiles within each TRC is provided in the report.

The majority of fishing businesses in Queensland were in the Brisbane, Bundaberg, Mooloolaba and Cairns TRCs (Table A). Some of the oldest fishing businesses owned by the current owner were found in the Southport and Thursday Island TRCs, whereas some of the newest-owned fishing businesses in Queensland were found in the Weipa and Cooktown TRCs. Businesses that had the most boats were in the Maryborough, Ayr and Weipa TRCs, whereas the largest boats were in the Hervey Bay, Thursday Island, Townsville and Karumba TRCs. Those businesses that had the greatest Gross value of Production (GVP) were found in the Thursday Island, Cairns, Townsville and Mackay TRCs. The lowest GVPs per business were found in the Ayr, Airlie Beach and Maryborough TRCs. Debt was greatest in the Weipa, Port Douglas and Townsville TRCs. In total, those TRCs in which the greatest total GVP was recorded were Thursday Island, Cairns, Townsville and Bundaberg.

There are distinctive characteristics of the social profiles of Master fishers (Table B) in different TRCs. For example, the youngest fishers were found in the Weipa TRC, and the oldest were found in the Southport and Yeppoon TRCs. Those that relied on income predominately from the fishing industry were from the Cooktown, Townsville, Maryborough and Tin Can Bay TRCs. Interestingly, fewer fishers in the Weipa, Cairns, and Mackay TRCs had a formal education to Year 12, and those fishers with the biggest families were from the south, in particular the Mooloolaba, Brisbane, Southport and Maryborough TRCs. The lowest incomes were from the Weipa, Port Douglas, and Karumba TRCs.

Employees, or crew, also showed distinct characteristics between TRCs (Table C). Crew in Karumba and Innisfail TRCs were, on average, older, and those in Tin Can Bay, Cooktown and Innisfail TRCs had been in the industry for longer. All crew in Ayr had employment elsewhere, whereas those in the Karumba, Cairns and Cooktown TRCs were less likely to have other employment. In addition, less crew owned their own home in the Maryborough, Cooktown and Mackay TRCs. Family sizes were also larger in the Airlie Beach, Karumba and Hervey Bay TRCs.

While the social and financial profiles of commercial fishing businesses may be of interest in their own right, they are most useful developed further in terms of indicators of sensitivity to change. For example, characteristics such as age, income, and years in the industry can be used to describe how sensitive businesses and fishers may be to changes in fisheries policy or changes that affect the quality of the resource. 'Indicators of sensitivity to change' will be developed in future reports in this research series.

Table A. Summary of Commercial Fishing Business Characteristics for each TRC.

TRC	No. of Businesses	No. of Employees	Predominant Activity	Mean Years Owned	Mean No. of Boats	Mean Boat Length	GVP (\$'000)	Median GVP	Total GVP (\$'000)
Karumba	31	99	C, N	13.8	1.5	11.4	90	3.4	2,790
Weipa	16	50	C, N	8.4	2.0	8.2	175	40.0	2,795
Thursday Is	19	77	L	20.3	1.1	11.9	278	11.2	5,278
Cooktown	15	42	L, C	7.6	1.5	8.3	100	6.0	1,502
Port Douglas	34	26	L, N	12.4	1.1	9.4	139	40.0	4,729
Cairns	192	787	T, L, C, N	13.4	1.6	13.1	277	10.0	53,195
Innisfail	134	40	T, L, C, N	15.6	1.5	10.1	94	19.4	12,611
Lucinda	36	68	L, C, N	16.0	1.9	6.9	95	nd	3,427
Townsville	153	428	T, L, C, N	12.5	1.6	11.9	232	23.6	35,487
Ayr	16	27	C, N	12.2	2.6	5.6	50	nd	798
Bowen	70	217	L, C, N	10.7	1.8	8.5	151	22.1	10,563
Airlie Beach	14	35	L, C	18.2	1.7	5.9	24	17.1	333
Mackay	119	464	T, L, C, N	13.5	1.8	8.9	237	1.2	28,220
Yeppoon	102	214	T, L, C, N	18.0	1.9	9.9	70	13.7	7,183
Gladstone	131	354	T, L, C, N	10.9	1.7	9.9	218	17.0	28,436
Bundaberg	307	829	T, L, C, N	12.4	1.7	10.2	121	19.3	37,065
Hervey Bay	111	377	T, L, C, N	14.6	1.8	12.0	179	19.4	19,874
Maryborough	36	61	C, N	18.0	3.0	6.1	50	5.0	1,815
Tin Can Bay	78	195	T, L, C, N	14.0	1.5	10.9	179	19.0	13,946
Mooloolaba	218	676	T, L, C, N	15.1	1.9	10.7	113	20.5	13,288
Brisbane	382	1,070	T, L, C, N	16.6	1.7	8.4	87	12.2	33,167
Southport	98	225	T, L, C, N	21.3	1.5	10.3	189	10.3	18,481

Note: C=Crabbing; N=Netting; T=Trawling; L=Line. nd=no data

Source: CRC Reef

Table B. Owner-Operator Summary Profiles for each TRC.

TRC	Mean Age	Years in Home town	Years in Industry	% Employed Elsewhere	% Own Own Home	% Completed Year 12	Percent Married	Mean Family Size	Total Family Size	Mean Income (\$'000)
Karumba	44.2	14.9	14.4	20.0	70.0	20.0	70.0	2.4	74	33
Weipa	34.8	17.0	10.2	50.0	16.7	0.0	83.3	3.8	61	26
Thursday Is.	47.6	27.9	22.0	14.3	85.7	28.6	100.0	4.3	82	42
Cooktown	47.2	17.2	17.2	0.0	33.3	33.3	66.7	2.3	34	22
Port Douglas	44.3	21.5	15.7	16.7	25.0	8.3	58.3	2.9	99	28
Cairns	44.5	21.7	21.7	17.1	42.9	7.1	81.2	3.3	628	49
Innisfail	45.9	21.3	21.7	26.4	53.7	11.1	81.5	3.4	456	38
Lucinda	43.8	25.8	22.3	44.4	50.0	23.5	88.2	3.5	126	43
Townsville	45.6	22.4	18.2	8.8	40.4	21.8	78.9	3.5	535	40
Ayr	41.9	28.3	17.8	71.4	57.1	14.3	85.7	2.6	42	45
Bowen	43.2	24.3	18.9	42.3	40.4	15.4	80.8	3.8	266	35
Airlie Beach	49.6	23.3	20.5	25.0	62.5	50.0	87.5	2.9	41	35
Mackay	47.7	26.0	20.6	18.4	53.1	2.0	87.5	3.6	423	43
Yeppoon	50.0	25.8	22.7	17.1	53.7	10.0	72.5	3.0	303	36
Gladstone	41.7	17.3	17.4	12.2	44.0	16.0	77.6	3.0	393	41
Bundaberg	43.0	21.8	20.5	16.7	48.7	14.3	83.1	3.2	982	38
Hervey Bay	40.6	19.3	20.9	18.6	37.2	19.3	78.6	3.3	366	47
Maryborough	44.2	25.8	21.8	5.9	52.9	11.8	88.2	3.6	130	38
Tin Can Bay	43.7	28.4	21.0	8.7	60.9	13.0	69.6	2.7	211	49
Mooloolaba	46.7	18.4	20.2	19.4	45.7	18.3	87.1	3.7	802	38
Brisbane	45.2	28.3	22.1	16.7	54.5	21.3	87.7	3.7	1,413	37
Southport	51.9	30.3	26.0	14.3	50.0	17.1	82.9	3.6	353	40

Source: CRC Reef

Table C. Employee/Crew Summary Profiles for each TRC.

TRC	No. of Crew	Mean Age	Years in Home town	Years in Industry	% Employed Elsewhere	% Own Own Home	% Completed Year 12	Percent Married	Family Size	Family Members	Income (\$'000)
Karumba	68	40.2	14.4	10.8	20.0	60.0	25.0	80.0	2.8	190	32
Weipa	34	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Thursday Is	58	34.0	11.4	7.6	50.0	14.3	37.5	25.0	1.6	93	31
Cooktown	27	38.9	11.3	11.3	22.2	11.1	33.3	55.6	2.3	62	21
Port Douglas	28	31.2	10.3	9.4	26.7	26.7	26.7	46.7	2.3	64	29
Cairns	595	32.8	14.2	10.0	21.4	15.4	29.6	50.0	2.3	1,381	30
Innisfail	268	40.4	22.7	11.3	63.0	51.9	29.6	74.1	2.6	697	23
Lucinda	32	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Townsville	275	33.3	20.5	9.2	40.0	15.8	26.3	50.0	1.9	522	20
Ayr	11	33.3	19.5	7.4	100.0	50.0	10.0	60.0	2.5	27	23
Bowen	147	31.1	19.6	8.3	35.3	15.8	41.2	52.9	2.5	367	16
Airlie Beach	21	30.1	19.7	7.6	42.9	28.6	28.6	71.4	3.3	69	29
Mackay	345	32.5	14.1	6.8	48.6	13.0	33.3	52.2	2.2	770	17
Yeppoon	112	32.6	20.1	5.1	40.0	20.0	22.2	45.0	2.4	274	11
Gladstone	223	33.8	16.6	7.8	41.7	17.1	25.7	52.8	2.4	535	19
Bundaberg	522	31.6	17.6	6.7	45.1	22.5	17.1	46.5	2.3	1,201	20
Hervey Bay	266	36.4	10.3	8.1	31.3	25.0	6.3	68.8	2.5	655	28
Maryborough	25	26.7	16.0	4.8	28.6	0.0	14.3	42.9	1.3	32	22
Tin Can Bay	117	39.0	16.0	12.2	16.7	20.0	0.0	83.3	2.3	269	32
Mooloolaba	458	30.8	15.3	8.9	36.6	17.1	19.5	41.5	1.9	882	23
Brisbane	688	33.1	21.2	9.7	46.3	17.9	22.4	47.8	2.1	1,445	16
Southport	127	33.0	16.4	9.1	50.0	25.0	37.5	43.8	2.2	279	25

Source: CRC Reef

